AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at line 6 on page 1 with the following rewritten paragraph.

The present invention relates to a storage-type data broadcast service system for use with digital broadcasting, and more particularly to a storage-type information transmission/reception system such that ~~a~~ digital compressed video/audio data transmitted at a transfer rate different from a standard transfer rate, which is set at the time the digital compressed video/audio data is created, can be properly recorded and decoded at the receiving end.

Please replace the paragraph beginning at line 3 on page 9 with the following rewritten paragraph.

Similarly, a packet TSP(n+α+β), ~~is~~ located at a time interval Pa(i+1) within 100 ms following the packet TSP(n+α), has assigned thereto an $(i+1)^{th}$ PCR(i+1), which represents its time. That is, PCR(i+1) represents a reference time T[PCR(i)], which falls at a time interval Pa(i+1) after the reference time T[PCR(i)]. β is a natural number corresponding to the number of packets TSP arrayed within the time interval Pa(i+1).

Please replace the paragraph beginning at line 18 on page 9 with the following rewritten paragraph.

The relationship between program clock references PCR and packets TSP, which has been described above with respect to the four packets TSP(n) to TSP(n+α+β+γ) belonging to a packet group composing one program, is also true ~~to~~ for any packets TSP subsequent to the packet TSP(n+α+β+γ), and is similarly true ~~to~~ for the packets TSP belonging to a packet group composing any other program.

Please replace the paragraph beginning at line 18 on page 10 with the following rewritten paragraph.

Since the reference time T[PCR(i-1)] and the system clock time T[STC(i-1)] represent the same time, the clock difference ΔP(i-1) which is outputted from the comparator 1100 is zero. As a result, the control voltage VdP(i-1) which is outputted to

the VCXO 1140 after the processing by the digital filter 1110, the D/A converter 1120, and the low-pass filter 1130 is a reference voltage (= center-of-control voltage, hereinafter simply referred to as "zero ~~bolts~~ volts").

Please replace the paragraph beginning at line 25 on page 12 with the following rewritten paragraph.

As a result, the system clock time T[STC(i)] which is measured during the time interval Pa(i) differs from the reference time T[PCR(i)] by a clock difference ΔP(i). In this example, the system clock time ~~T[STC(i)]"~~ T[STC(i)] is ahead of the reference time T[PCR(i)], which is originally meant to be identical, by the clock difference ΔP(i). Thus, when the STC which is recovered from the PCR and the PCR before recovery are not in synchronization, the storage-type data receiving device SDRc does not operate properly.

Please replace the paragraph beginning at line 24 on page 13 with the following rewritten paragraph.

As a result, the clock difference ΔP(i+1) between the reference time T[PCR(i+1)] and the system clock time ~~T[STC(i+1)]"~~ T[STC(i+1)] still has a minus value, although smaller than the previous clock difference ΔP(i).

Please replace the paragraph beginning at line 17 on page 14 with the following rewritten paragraph.

As a result, the clock difference ΔP(i+2) between the reference time T[PCR(i+2)] and the system clock time ~~T[STC(i+2)]"~~ T[STC(i+2)] becomes even smaller than the previous clock difference ΔP(i+1), and takes a plus value. In other words, the system clock time ~~T[STC(i+2)]"~~ T[STC(i+2)] is calculated to be slower than the reference time T[PCR(i+2)] by the clock difference ΔP(i+2). This is a result of the generation frequency of the VCXO 1140 being set so as to be smaller than the appropriate value. In this case, the absolute value of the clock difference ΔP(i+2) is smaller than the absolute value of the clock difference ΔP(i+1); thus, dissynchronization between the PCR and the STC is alleviated.

Please replace the heading at line 8 on page 20 with the following rewritten heading.

~~DISCLOSURE~~ SUMMARY OF THE INVENTION

Please replace the paragraph beginning at line 11 on page 20 with the following rewritten paragraph.

A first aspect of the present invention ~~is~~ provides a storage-type data broadcast service system for transmitting a first transport stream constituting at least one content and containing a plurality of packet data having a program clock reference as reference clock information when reproducing the content, at a second transfer rate different from a first transfer rate, which is determined by the reference clock information, and extracting the plurality of packet data composing the content from the transmitted transport stream to generate and store a second transport stream., ~~comprising:~~ The storage-type data broadcast service system comprises a transmitter for transmitting the plurality of packet data composing the content at the second transfer rate; and a receiver for receiving the transmitted first transport stream and detecting a transfer rate ratio between the first transfer rate and the second transfer rate to generate the second transport stream based on the detected transfer rate ratio.

~~a transmitter for transmitting the plurality of packet data composing the content at the second transfer rate, and~~

~~a receiver for receiving the transmitted first transport stream and detecting a transfer rate ratio between the first transfer rate and the second transfer rate to generate the second transport stream based on the detected transfer rate ratio.~~

Please replace the paragraph beginning at line 5 on page 21 with the following rewritten paragraph.

According to a second aspect of the present invention based on the first aspect, the receiver comprises: a PCR extractor for extracting the program clock reference contained in the first transport stream; an STC recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference

clock for the packet data; a PCR correction factor calculator for detecting the transfer rate ratio based on two contiguous said extracted program clock references, and deriving, based on the transfer rate ratio, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate; and a PCR corrector for correcting the extracted program clock reference based on the correction factor. Furthermore, according to the second aspect, the STC recoverer is feedback-controlled to recover a system time clock based on the corrected program clock reference.

~~a PCR extractor for extracting the program clock reference contained in the first transport stream,~~

~~an STC recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data,~~

~~a PCR correction factor calculator for detecting the transfer rate ratio based on two contiguous said extracted program clock references, and deriving, based on the transfer rate ratio, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate, and~~

~~a PCR corrector for correcting the extracted program clock reference based on the correction factor, wherein the STC recoverer is feedback controlled to recover a system time clock based on the corrected program clock reference.~~

Please replace the paragraph beginning at line 24 on page 21 with the following rewritten paragraph.

According to a third aspect of the present invention based on the first aspect, the receiver comprises: a PCR extractor for extracting the program clock reference contained in the first transport stream; an STC recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data; an STC/PCR rate ratio calculator for deriving, based on the extracted program clock reference and the recovered system time clock, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate, and a PCR corrector for correcting the extracted program clock reference based on the correction factor. According to the third aspect, the STC recoverer is feedback-controlled to recover a system time clock based on the corrected program clock reference.

~~a PCR extractor for extracting the program clock reference contained in the first transport stream,~~

~~an STC recoverer for recovering, based on the extracted program clock reference, a system time clock which is a processing reference clock for the packet data,~~

~~an STC/PCR rate ratio calculator for deriving, based on the extracted program clock reference and the recovered system time clock, a correction factor for correcting the extracted program clock reference so as to match the second transfer rate, and~~

~~a PCR corrector for correcting the extracted program clock reference based on the correction factor, wherein the STC recoverer is feedback-controlled to recover a system time clock based on the corrected program clock reference.~~

Please replace the paragraph beginning at line 18 on page 22 with the following rewritten paragraph.

According to a fourth aspect of the present invention based on the first aspect, the receiver comprises: a PCR extractor for extracting the program clock reference contained in the first transport stream; a PCRr specifier for causing the PCR extractor to extract as a standard program clock reference the reference clock contained in the first transport stream and contained in packet data transferred at the first transfer rate; and an STC recoverer for recovering, based on the extracted standard program clock reference, a system time clock which is a processing reference clock for the packet data.

~~a PCR extractor for extracting the program clock reference contained in the first transport stream,~~

~~a PCRr specifier for causing the PCR extractor to extract as a standard program clock reference the reference clock contained in the first transport stream and contained in packet data transferred at the first transfer rate, and~~

~~an STC recoverer for recovering, based on the extracted standard program clock reference, a system time clock which is a processing reference clock for the packet data.~~

Please replace the heading at line 12 on page 25 with the following rewritten heading.

~~BEST MODE FOR CARRYING OUT~~ DETAILED DESCRIPTION OF THE INVENTION

Please replace the paragraph beginning at line 10 on page 34 with the following rewritten paragraph.

The relationship between program clock references PCR and packets TSP, which has been described above with respect to the four packets TSP(n) to TSP(n+α+β+γ) belonging to a packet group composing one program, is also true ~~to~~ for any packets TSP subsequent to the packet TSP(n+α+β+γ), and is similarly true ~~to~~ for the packets TSP belonging to a packet group composing any other program.

Please replace the paragraph beginning at line 12 on page 35 with the following rewritten paragraph.

Therefore, the clock difference ΔP(i-1) which is outputted from the comparator 1100 is zero. As a result, the control voltage VdP(i-1) which is outputted to the VCXO 1140 after being subjected to the processing by the digital filter 1110, the D/A converter 1120, and the low-pass filter 1130 is zero ~~bolts~~ volts.

Please replace the paragraph beginning at line 1 on page 37 with the following rewritten paragraph.

In other words, the system clock time T[STC(i)] which is measured during the corrected time interval KΔPa(i) differs from the corrected reference time T[PCRc(i)] by a clock difference ΔP(i). In this example, the system clock time ~~T[STC(i)]"~~ T[STC(i)] is ahead of the corrected reference time T[PCRc(i)], which is originally meant to be identical, by the clock difference ΔP(i). Thus, when the STC which is recovered from the PCR (PCRc) and the PCR (PCRc) before recovery are not in synchronization, the storage-type data receiving device SDRc does not properly operate.

Please replace the paragraph beginning at line 24 on page 37 with the following rewritten paragraph.

As a result, the clock difference ΔP(i+1) between the corrected reference time T[PCRc(i+1)] and the system clock time ~~T[STC(i+1)]"~~ T[STC(i+1)] still has a minus value, although smaller than the previous clock difference ΔP(i).

Please replace the paragraph beginning at line 15 on page 38 with the following rewritten paragraph.

As a result, the clock difference ΔP(i+2) between the corrected reference time T[PCRc(i+2)] and the system clock time ~~T[STC(i+2)]"~~ T[STC(i+2)] becomes even smaller than the previous clock difference ΔP(i+1), and takes a plus value. In other words, the system clock time ~~T[STC(i+2)]"~~ T[STC(i+2)] is calculated to be slower than the corrected reference time T[PCRc(i+2)] by the clock difference ΔP(i+2). This is a result of the generation frequency of the VCXO 1140 being set so as to be smaller than the appropriate value. Note that, in this case, the absolute value of the clock difference ΔP(i+2) is smaller than the absolute value of the clock difference ΔP(i+1); thus, dissynchronization between the PCRc and the STC is alleviated.